ABSTRACT

09/455,991

In a circuit including at least one thin film transistor formed on an insulating substrate, a region 105 to which metal elements that promote crystallinity are added is disposed apart from a semiconductor island region 101 that forms the thin film transistor by a distance y, has a width w, and extends longitudinally over an end portion of the semiconductor island region 101 by a distance x. Also, in a TFT manufactured in a region which is not interposed between the nickel added regions, another nickel added region is disposed (resultantly, which is interposed between two nickel added regions). Further, all the intervals between the respective nickel added regions are preferably identified with each other. Thus, a thin film transistor circuit being capable of a high speed operation (in general, some tens of Mhz and more) is formed. In particular, correcting the difference of crystal growths, using a crystalline silicon film added with nickel, TFTs with uniform characteristics can be provided. Also, a crystal growth distance of a region where is not interposed between the nickel added regions can be sufficient.